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Procedia - Social and Behavioral Sciences 83 (2013) 417 – 421

Procedia
Social and Behavioral Sciences2nd World Conference on Educational Technology Researches – WCETR2012

Investigation of Elementary School Students' Opinions Related to Unethical Behavior in the use of Information and Communication Technologies

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Abstract

This study is a descriptive study carried out to determine the opinions of elementary school students related to unethical behavior and the causes of these behaviors in the use of information and communication technologies (ICT). For this aim, opinions of students' in regard to unethical behavior and the causes of unethical behavior in the use of information and communication technologies were collected. The working group of the study consisted of 358 students who attend to elementary school during the school year of 2011-2012. Findings indicated that the participants' awareness level was high on the unethical behavior of ICT. According to the results, the causes of unethical behaviors of the elementary school students in the use of ICT were listed as "not having enough knowledge about legal responsibilities, friends' roles, social responsibilities, not having sufficient knowledge about ethics, moral values, family, believing that no one will be impaired, financial status, and religious beliefs".

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Selection and/or peer-review under responsibility of Prof. Dr. Hafize Keser Ankara University, Turkey

Keywords: Awareness, communication, elementary education, ethics, ICT, technology, unethical behaviors

1. Introduction

Primary school students' are in intense interaction with information and communication technologies (ICT) during their school and social life. If students' intensive interactions with ICT are developed in the ethical and legal framework, possible future problems may be prevented. Since primary school age children are in a constant process of socialization through the family, school, social environment and the mass media, they are one of the most affected groups by the popular culture, computers, and popular culture products such as the Internet (Kaya & Tuna, 2010). Technology has become an integral part of everyday life. Individuals in this new era have become self-sufficient with the help of technology and were alienated against society (Kocacık, 2003). For this reason ethical dilemmas in the use of ICT may lead to unwanted behavior patterns. Ethical dilemma arises when argued righteous

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are contrary to each other on either side. It is the conflict of two or more values and the difficulty of the selection among those values (Kutlu, 2008; Şen, 2009; Toraman & Akcan, 2003).

1.1. Purpose of the study

In today's society, radical changes have emerged in economic, cultural and social structures with the rapid developments in information and communication technologies. This situation has brought along with issues about unethical behavior in the use of ICT and ethical dilemmas (Yüksel, 2002). It has been widely observed that today's students' use ICT at every stage in their education and social lives. During their usage of ICT negative behavior forms occur. For this reason, taking necessary measures about unethical behavior in the use of ICT by determining students' levels of awareness about the potential negative behavior and by recognizing the causes of unethical behavior may be considered very important. In this context, this research aimed to determine the opinions of elementary school students related to unethical behavior and the causes of these behaviors in the use of ICT.

2. Methodology

This study is a descriptive study. The purpose of the study was to investigate students' opinions about unethical behavior and the causes of unethical behavior in the use of information and communication technologies. Thus, answering the question which was formed as "What are students' views about unethical behavior in the use of information and communication technologies?" was the main aim of this study. Data used in this study was originally collected for a thesis written by the first author under the advisement of the second author. Only a small portion of the data collected for that research was used in this study.

2.1. Study Group

The working group of the study consisted of 358 students from various schools who attend to elementary school during the school year of 2011-2012. In terms of gender, 51.1% of the participants were female and 48.9% of them were male. In terms of class attended, 33,2% of the participants was in 6th grade, 33,8% of the participants was in 7th grade, and 33,0% of the participants was in 8th grade.

2.2. Data Collection and Data Analysis

In collecting data two instruments, developed by the researchers, were used. The first instrument, "Personal Information Form" was used to gather information about participants' demographic characteristics. The second instrument, "Unethical Behavior in the use of Information and Communication Technologies Survey" was used to find out students' opinions about unethical behavior and the cause of these behaviors in the use of information and communication technologies. In analyzing the data frequencies and percentages were reported.

3. Findings and Discussion

According to the distribution of students' opinions about unethical behavior in the use of information and communication technologies as displayed in Table 1, it is seen that participants' awareness level was high on unethical behavior of ICT.

Students' opinions about unethical behavior in the items of the questionnaire examined and it seen that unethical behaviors in social networking environments, knowledge, documents and studies gained over the internet without reference such as plagiarism have often been found like an unethical behavior by the participants as displayed in Table 1. For all that; findings about sharing and copying of unlicensed software were examined, it seen that students have revealed more ethical dilemmas about these behaviors in the use of ICT more than other substances. In

addition, students' opinions about sharing and duplicating of unlicensed software were determined and it was found that perception of students' opinions of "ethical behavior" was more than other substances with (18,72 + 5,86=24,58) 24.58% and perception of students' opinions of "undecided" was more than other substances with 14.25% as displayed in Table 1.

Table 1. The Distribution of Students' Opinions about Unethical Behavior in the use of ICT

| <i>Unethical behavior in the use of ICT</i> | | <i>1</i> | <i>2</i> | <i>3</i> | <i>4</i> | <i>5</i> | <i>Total</i> |
|---|---|----------|----------|----------|----------|----------|--------------|
| 1. Using software without making any payment | f | 209 | 108 | 25 | 8 | 8 | 358 |
| | % | 58,38 | 30,17 | 6,98 | 2,23 | 2,24 | 100 |
| 2. Using programs with fake serial numbers | f | 217 | 104 | 13 | 10 | 14 | 358 |
| | % | 60,61 | 29,05 | 3,63 | 2,79 | 3,92 | 100 |
| 3. Using illegal/unlicensed software. | f | 220 | 110 | 7 | 5 | 16 | 358 |
| | % | 61,45 | 30,73 | 1,96 | 1,40 | 4,46 | 100 |
| 4. Copying programs without getting permission | f | 210 | 111 | 14 | 7 | 16 | 358 |
| | % | 58,66 | 31,01 | 3,91 | 1,96 | 4,46 | 100 |
| 5. Using licensed items such as photographs, pictures, and animations without permission from the owner | f | 196 | 121 | 21 | 8 | 12 | 358 |
| | % | 54,75 | 33,80 | 5,87 | 2,23 | 3,35 | 100 |
| 6. Distributing serial numbers (license information) of programs through the Internet | f | 185 | 103 | 44 | 13 | 13 | 358 |
| | % | 51,68 | 28,77 | 12,29 | 3,63 | 3,63 | 100 |
| 7. Distributing license breaking programs through the Internet | f | 190 | 103 | 39 | 12 | 14 | 358 |
| | % | 53,07 | 28,77 | 10,90 | 3,35 | 3,91 | 100 |
| 8. Selling copies of CDs of licensed programs without permission | f | 209 | 110 | 15 | 11 | 13 | 358 |
| | % | 58,38 | 30,73 | 4,19 | 3,07 | 3,63 | 100 |
| 9. Sharing the copies of licensed software with friends | f | 131 | 88 | 51 | 67 | 21 | 358 |
| | % | 36,59 | 24,58 | 14,25 | 18,72 | 5,86 | 100 |
| 10. Connecting the Internet through neighbors' wireless network connection without permission or simply by breaking their password. | f | 199 | 108 | 25 | 13 | 13 | 358 |
| | % | 55,59 | 30,17 | 6,98 | 3,63 | 3,63 | 100 |
| 11. Downloading mp3, movie or game from illegal web sites. | f | 176 | 103 | 41 | 17 | 21 | 358 |
| | % | 49,16 | 28,77 | 11,45 | 4,75 | 5,87 | 100 |
| 12. Distributing and/or sharing mp3, movies or games which obtained from illegal web sites on the Internet. | f | 175 | 104 | 43 | 20 | 16 | 358 |
| | % | 48,88 | 29,05 | 12,01 | 5,59 | 4,47 | 100 |
| 13. Attempting to communicate with others using fake credentials on social networking sites (facebook, twitter, etc.). | f | 186 | 118 | 23 | 13 | 18 | 358 |
| | % | 51,96 | 32,96 | 6,42 | 3,63 | 5,03 | 100 |
| 14. Giving false information by hiding the identity information on forum sites. | f | 185 | 119 | 26 | 10 | 18 | 358 |
| | % | 51,68 | 33,24 | 7,26 | 2,79 | 5,03 | 100 |
| 15. Making comments with fake account on forum sites. | f | 190 | 128 | 13 | 11 | 16 | 358 |
| | % | 53,07 | 35,75 | 3,63 | 3,07 | 4,48 | 100 |
| 16. Using a picture or video file belong to someone else without the consent and approval of the owner. | f | 197 | 118 | 23 | 7 | 13 | 358 |
| | % | 55,03 | 32,96 | 6,42 | 1,96 | 3,63 | 100 |
| 17. Sending anonymous e-mail messages with disturbing content to others. | f | 210 | 104 | 21 | 9 | 14 | 358 |
| | % | 58,66 | 29,05 | 5,87 | 2,51 | 3,91 | 100 |
| 18. Intentionally, sending infected e-mail message to others. | f | 215 | 103 | 15 | 6 | 19 | 358 |
| | % | 60,06 | 28,76 | 4,19 | 1,68 | 5,31 | 100 |
| 19. Using personal information and ideas belonging to others without getting permission | f | 198 | 111 | 21 | 10 | 18 | 358 |
| | % | 55,31 | 31,01 | 5,87 | 2,79 | 5,02 | 100 |
| 20. Disturbing people with hiding personal identification information which possible in the cyber world | f | 208 | 109 | 18 | 7 | 16 | 358 |
| | % | 58,10 | 30,45 | 5,03 | 1,96 | 4,46 | 100 |
| 21. Using ready-made homework assignments prepared by others by downloading form the Internet. | f | 146 | 114 | 41 | 39 | 18 | 358 |
| | % | 40,78 | 31,84 | 11,45 | 10,89 | 5,04 | 100 |
| 22. Getting ready-made homework assignments form homework sites. | f | 177 | 92 | 38 | 34 | 17 | 358 |
| | % | 49,44 | 25,70 | 10,61 | 9,50 | 4,75 | 100 |
| 23. Submitting others' projects or assignments found on the Internet as mine | f | 195 | 107 | 24 | 14 | 18 | 358 |
| | % | 54,47 | 29,89 | 6,70 | 3,91 | 5,03 | 100 |

| | | | | | | | |
|--|---|-------|-------|------|------|------|-----|
| 24. Using information that found on the Internet which doesn't belong to us on project without citing. | f | 189 | 101 | 33 | 19 | 16 | 358 |
| | % | 52,79 | 28,21 | 9,22 | 5,31 | 4,47 | 100 |

- Definitely Not Ethical Behavior, 2- Not Ethical Behavior, 3- Undecided, 4- Ethical Behavior, 5- Definitely Ethical Behavior

As related to this item of survey; concept of distance created by virtual environment could be argued that distance was caused for students tend to thinking of sharing with friends was an "ethical behavior" and students rather than considering the interests of them and his/her close colleagues to overseeing the owner of software's rights. It can be difficult for individuals to empathize with other people about the consequences of unethical behavior in the use of ICT because of the distance and communication problems created by virtual environment. For this reason individuals may prefer to consider their own interests (Torun, 2007).

Distribution of students' opinions about the causes of unethical behavior in the use of information and communication technologies displayed in Table 2.

Table 2. The Distribution of Students' Opinions about the Causes of Unethical Behavior in the use of ICT

| <i>The causes of unethical behavior in the use of ICT</i> | | <i>1</i> | <i>2</i> | <i>3</i> | <i>4</i> | <i>5</i> | <i>Total</i> |
|---|---|----------|----------|----------|----------|----------|--------------|
| 1. A person's circle of friends' effect on unethical behavior in the use of ICT. | f | 13 | 22 | 69 | 128 | 126 | 358 |
| | % | 3,63 | 6,15 | 19,2 | 35,7 | 35,2 | 100 |
| 2. A person's family effect on unethical behavior in the use of ICT. | f | 21 | 54 | 87 | 104 | 92 | 358 |
| | % | 5,87 | 15,0 | 24,3 | 29,0 | 25,7 | 100 |
| 3. A person's financial situation effect on unethical behavior in the use of ICT. | f | 29 | 60 | 95 | 96 | 78 | 358 |
| | % | 8,10 | 16,7 | 26,5 | 26,8 | 21,7 | 100 |
| 4. When a person uses ICT in an unethical manner, that person believes in that nobody will be impaired in this situation. | f | 19 | 53 | 91 | 105 | 90 | 358 |
| | % | 5,31 | 14,8 | 25,4 | 29,3 | 25,1 | 100 |
| 5. When a person uses ICT in an unethical manner, that person believes in that anyone can't notice him or her. | f | 28 | 48 | 71 | 122 | 89 | 358 |
| | % | 7,82 | 13,4 | 19,8 | 34,0 | 24,8 | 100 |
| 6. When a person uses ICT in an unethical manner, that person doesn't have enough knowledge about ethic. | f | 8 | 30 | 73 | 135 | 112 | 358 |
| | % | 2,23 | 8,38 | 20,3 | 37,7 | 31,2 | 100 |
| 7. A person's moral values effect on unethical behavior in the use of ICT. | f | 17 | 47 | 75 | 111 | 108 | 358 |
| | % | 4,75 | 13,1 | 20,9 | 31,0 | 30,1 | 100 |
| 8. A person's religion beliefs effect on unethical behavior in the use of ICT. | f | 35 | 58 | 102 | 78 | 85 | 358 |
| | % | 23,7 | 21,7 | 28,4 | 16,2 | 9,78 | 100 |
| 9. When a person uses ICT in an unethical manner, that person doesn't have enough knowledge about legal responsibilities. | f | 9 | 32 | 58 | 120 | 139 | 358 |
| | % | 2,51 | 8,94 | 16,2 | 33,5 | 38,8 | 100 |
| 10. When a person uses ICT in an unethical manner, that person doesn't pay attention to social responsibilities. | f | 11 | 30 | 68 | 108 | 141 | 358 |
| | % | 3,07 | 8,38 | 18,9 | 30,1 | 39,3 | 100 |

1- Strongly Disagree, 2- Disagree, 3- Undecided, 4- Agree, 5- Strongly Agree

According to the distribution of students' opinions about the cause of unethical behavior in the use of information and communication technologies as displayed in Table 2, it is seen that the causes of unethical behaviors of the elementary school students in the use of ICT were listed as "not having enough knowledge about legal responsibilities, friends' roles, social responsibilities, not having sufficient knowledge about ethics, moral values, family, believing that no one will be impaired, financial status, and religious beliefs".

4. The Results and Suggestions

Findings indicated that the participants' awareness level was high on unethical behavior of ICT. It can be said that the scope of ICT course offered in schools, being taken up issues such as cyber crimes, types of software according to usage rights could be contributed the formation of general awareness about ethical behavior. In this

context, it can be said that ICT course can be an important router to ensure elementary school students' effective, efficient and ethical usage in ICT.

It was found that “not having sufficient knowledge about ethics and not having enough knowledge about legal responsibilities” were the main issues/factors causing the unethical behaviors in using ICT. Thus, it could be suggested that starting from the elementary school, every individual should be provided with training on ethical issues. In this way, disadvantages that individuals may face such as potential security threats and ethical dilemmas can be minimized in the use of computer and internet technologies.

In addition, since ICT teachers are role model for their students, especially in the use of ICT, those teachers at schools could be provided with training on how computer and Internet technologies can be used effectively, efficiently, and ethically. It would also be advisable that ethics and issues related to ethics could be included in the content of ICT related courses of the programs in higher education institutions where prospective computer teachers are trained.

References

- Kaya, K. ve Tuna, M. (2010). Popüler kültürün ilköğretim çağındaki çocukların aile içi ilişkileri üzerindeki etkisi. *SDÜ Fen Edebiyat Fakültesi Sosyal Bilimler Dergisi*, 21, 237-256.
- Kocacık, F. (2003). Bilgi toplumu ve Türkiye. *C.Ü. Sosyal Bilimler Dergisi*, 27(1), 1-10. [Çevrim-içi: <http://eskidergi.cumhuriyet.edu.tr/makale/78.pdf>], Erişim tarihi: 27.12.2011.
- Kutlu, H. A. (2008). Muhasebe meslek mensupları ve çalışanlarının etik ikilemleri: Kars ve Erzurum illerinde bir araştırma. *Ankara Üniversitesi SBF Dergisi*, 63(2), 143-170. [Çevrim-içi: <http://dergiler.ankara.edu.tr/dergiler/42/934/11646.pdf>], Erişim tarihi: 06.05.2012.
- Şen, M. L. (2009). *Kamu görevlileri etik rehberi. Yolsuzluğun önlenmesi için Etik Projesi*. [Çevrim-içi: <http://www.etik.gov.tr/BilgiBankasi/etikrehberi.pdf>], Erişim tarihi: 05.05.2012.
- Toraman, C. ve Akcan, A. (2003). Muhasebe denetiminde etik teori. *Muhasebe ve Denetime Bakış Dergisi*, 3(8), 59-71.
- Torun, Ö. (2007). *Resmî ortaöğretim kurumlarında öğrenim gören öğrencilerin İnternet etiğine ilişkin algılarının incelenmesi*. Yayımlanmamış Yüksek Lisans Tezi. Marmara Üniversitesi Eğitim Bilimleri Enstitüsü, İstanbul.
- Yüksel, M. (2002). Modernleşme bağlamında hukuk ve etik ilişkisine sosyolojik bir bakış. *Ankara Üniversitesi SBF Dergisi*, 57(1), 177-195.